

Claims

What is claimed:

1. A system for digitally defining a color from more than one color model, said system comprising:
means for selecting at least one color component from a first color model;
means for selecting at least one additional color component from at least one other color model; and
means for assigning percentages to each of said selected color components.

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2. A system for determining a coordinate set for visual depiction of a process color having at least one other color applied to it, said system comprising:
means for defining the process color and the at least one other color applied to it into process color components, spot color components and percentage values;
means for converting said process color components and their percentage values into a coordinate set values for visual depiction;
means for determining said coordinate set values of said spot color components;
means for applying percentages to said coordinate set of values of said spot color components according to said percentage values for said spot color components;
means for determining a value for said percentages of said spot color components layered onto said coordinate set of values converted from said process color components; and
means for converting said value into said coordinate set.

3. The system of claim 2 wherein said means for converting said process color components into said coordinate set values includes:

means for setting said coordinate set values for said process color components to said coordinate set values for the color white if there are no process color components.

3.
4. The system of claim 2 wherein said means for determining a value further includes:

means for determining said value by an iterative process for each of the spot colors sequentially layered on the previously determined said value until said value is finally determined.

4.
5. The system of claim 2 wherein said means for assigning said percentages of said spot color components according to said shade value includes:

means for applying percentages to each of the components of the coordinate set values according to said percentage value for those components.

5.
6. The system of claim 4 wherein said means for determining a value includes:

means for determining a value for each of the coordinate set components for each of said percentage values for each of said coordinate set components layered onto each of the components of said coordinate set values converted from said process color components.

7. A system for visually depicting a document having at least one spot color applied onto a document process color on a computer monitor screen, said system comprising:

means for defining the document process color;

5 means for defining each of at least one spot color to be applied onto the document process color;

means for applying shade values to each of said document process color and to each of said at least one spot color;

10 means for defining a new color based on the shade values applied for each of said document process color and for each of said at least one spot color; and

means for applying said defined new color to a document depicted visually on a computer monitor screen.

7.
8. The system of claim 7 wherein said system further includes:
said means for defining the document process color includes:

means for defining the process color components of the document process color; and

5 said means for applying shade values to each of said document process color and to each of said at least one spot color includes:

means for applying a shade value to each of the process color components of the document process color.

8.
9. The system of claim 8 wherein said system further includes:

said means for defining each of at least one spot color to be applied onto the document process color includes:

5 means for defining the spot color model components of each of the at least one spot color to be applied onto the document process color; and

said means for applying shade values to each of said document process color and to each of said at least one spot color further includes:

means for applying a shade value to each of the components of each of the at least one spot color to be applied onto the document process color.

9.
10. The system of claim 9 wherein said system further includes:

said means for defining the document process color includes:

means for defining the process color components of the document process color;

5 said means for defining each of at least one spot color to be applied onto the document process color includes:

means for defining the spot color model components of each of the at least one spot color to be applied onto the document process color; and

10 said means for applying shade values to each of said document process color and to each of said at least one spot color further includes:

means for applying a shade value to each of the process color components of the document process color and to each of the spot color components of each of the at least one spot color to be applied onto the document process color.

10.¹⁰ The system of claim 9⁹ wherein said means for defining a new color includes:

means for layering on each of said at least one spot color onto said document process color sequentially in an iterative process.

11.¹¹ The system of claim 10¹⁰ wherein said means for applying said defined new color to a document depicted visually on a computer monitor screen includes:

means for converting the defined new color obtained from said means for defining a new color into a spot color model for display onto a computer monitor screen.

13. A process for digitally depicting a document having a combination of process colors and spot colors on a computer monitor screen, said process comprising the steps of:

defining the process colors and the spot colors;

5 assigning shade values to each of said process colors and to each of said spot colors;

defining a color based on the combination of said assigned shade values for each of said process colors and for each of said spot colors; and

10 applying said defined color to the document visually depicted on the computer monitor screen.

14.¹³ The process of claim 13¹² wherein said step of defining process colors and the spot colors further includes:

converting said process color into an RGB value.

14.
15. The process of claim 13 wherein said step of defining the process colors and the spot colors further includes:

determining the RGB value for the spot color.

16. The process of claim 13 wherein said step of defining a color based on the combination of said assigned shade values for each of said process colors and for each of said spot colors further includes:

determining a value for said defined color based on each of said spot colors shaded by said assigned shade value layered onto each of said process colors.

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17. The process of claim 13 wherein said step of defining the process colors and the spot colors includes:

defining the process colors by the components of the process color model;
and

defining the spot colors by the components of the spot color model.

18. The process of claim 17 wherein said step of defining a color includes:

assigning shade values to each of said components of the process colors; and
assigning shade values to each of said components of the spot colors.

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